Date: 29/04/2025
Prepared For: Bookmark Reading
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Introduction

Following the successful establishment of the foundational layer in Phase 1, this report details the completion of Phase 2 for the Literacy Tracker Salesforce application. This phase significantly expands the system's capabilities by introducing structured methods for **tracking formal student assessments** and **monitoring student confidence**, along with initial mechanisms for **recognizing student achievements through milestones**. As with Phase 1, **all development adheres strictly to a declarative-only approach (no Apex, DLRS, or unmanaged code), ensuring maintainability and alignment with standard Salesforce administration practices.** This phase builds directly upon the core schema and security model established previously.

Phase 2 Overview

Phase 2 focused on **integrating assessment and confidence tracking into the student record lifecycle**. Key accomplishments include the creation of new custom objects for Assessments, Confidence Surveys, and Milestones; the implementation of screen flows for capturing this data; and the creation of automation to synchronize student reading levels and generate initial milestones based on progress. The existing security model was updated to grant appropriate access to these new features.

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Demo Available at: https://rubenpires-dev-ed.develop.lightning.force.com/
Login Credentials:
Username: jvolu@ruben.pires
Password: VOLUNTEER123

Available Demo Activities (New in Phase 2):

- Log Assessments for Students via the Action button.
- Log Confidence Surveys for Students via the Action button.
- View Assessment, Confidence Survey, and Milestone history on Student record tabs.
- Observe automatic updates to Student's Current Reading Level after logging a higher-level Assessment.
- Observe automatic creation of "Level Advancement" Milestones.

1. Phase 2 Data Model Enhancements

Phase 2 extended the data model by adding three core custom objects, all linked via Master-Detail relationships back to the Student__c record (see screenshots on the *next page)*.

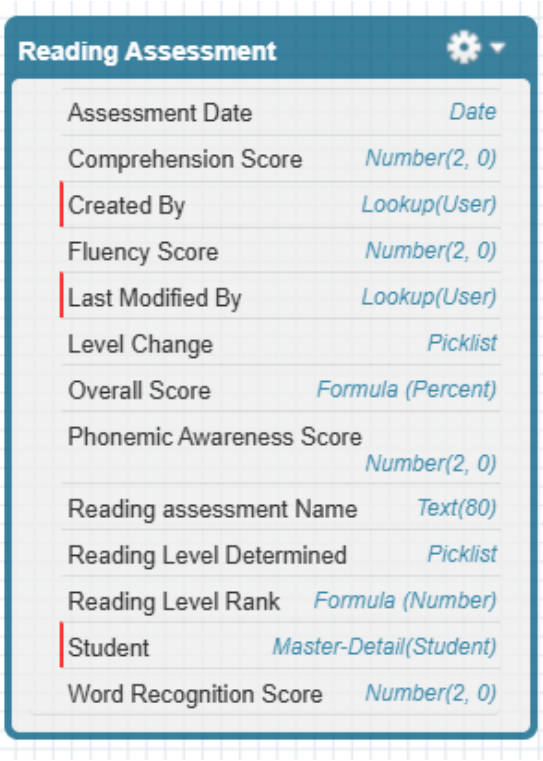
New fields were also added to **Student__c** to integrate this data:

- **Roll-Up Summaries:** Assessment_Count__c, Confidence_Survey_Count__c, Total_Milestones_Achieved__c, Latest_Assessment_Level_Rank__c (MAX).
- **Formula Field:** Latest_Assessment_Level__c (translates the MAX rank back to the text level).

These additions allow for comprehensive tracking and reporting on student assessments, confidence trends, and achievements directly alongside their session history.

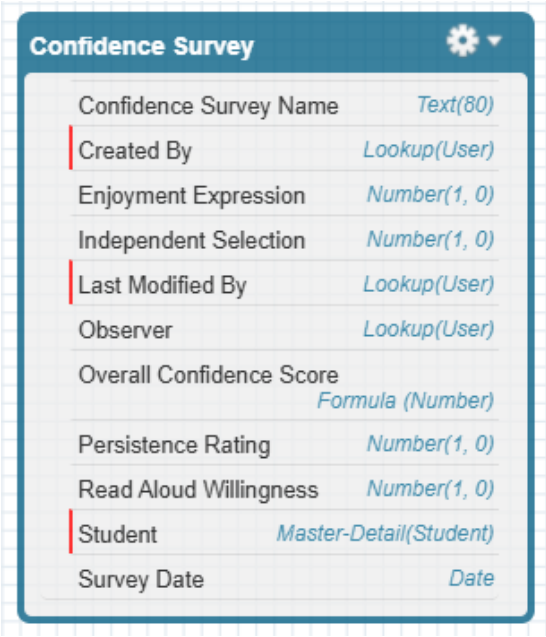
Reading_Assessment__c:

Captures formal assessment results. Key fields include **Assessment_Date__c**, **Reading_Level_Determined__c**, individual skill scores (Comprehension, Fluency, etc.), **Level_Change__c**, and formula fields for **Reading_Level_Rank__c and Overall_Score__c**



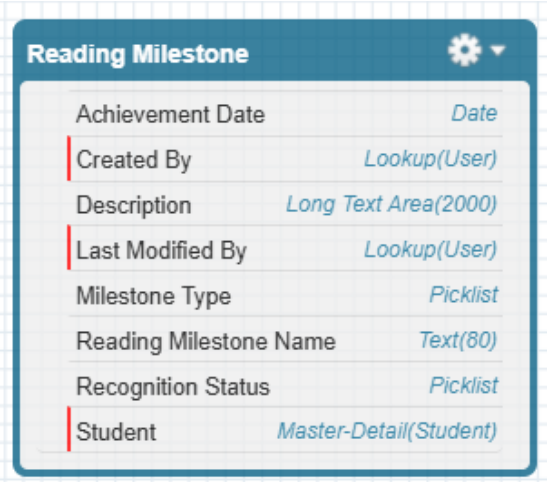
Confidence_Survey__c:

Tracks student **motivation and engagement via 1-5 ratings**. Key fields include Survey_Date__c, rating fields (e.g., Read_Aloud_Willingness__c), Observer__c (auto-populated), and a formula for Overall_Confidence_Score__c



Reading_Milestone__c:

Records specific student achievements. Key fields include **Achievement_Date__c, Milestone_Type__c, Description__c, and Recognition_Status__c.** This object is populated automatically by the **Milestone Generator flow.**



Key Data Refinements & Integrations

Building upon the Phase 1 foundation and Phase 2 objects, the following specific field enhancements were implemented or identified to improve data visibility and integration:

Student__c.Last_Session_Book__c (Lookup to Book):

(Carry-over enhancement identified during Phase 1 testing).

This field was added to the Student__c object. The Student Last-Session Updater flow (originally built in Phase 1) was modified to populate this field with the Book__c lookup from the most recent Reading_Session__c. This provides quick visibility on the Student record of the last book used.

Student__c.Last_Assessment_Date__c (Date - Proposed Enhancement):

While Assessment history is available in the related list, adding a dedicated field on the Student record, populated by a flow (potentially modifying the Reading-Level Sync flow or a new simple record-triggered flow on Assessment creation/update) to show the date of the most recent assessment, could be beneficial for reporting and quick reference on the Student page/Path.

(Action: Added to backlog for consideration)

Student__c.Latest_Overall_Confidence_Score__c (Number - Proposed Enhancement):

Similar to assessments, having the score from the most recent Confidence Survey directly on the Student record would be valuable for Path display, reporting, and trend analysis. This would require a new field and a record-triggered flow on Confidence_Survey__c (similar logic to the Student Last-Session Updater) to populate it.

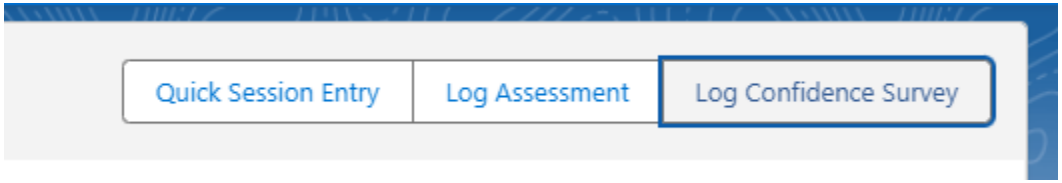
(Action: Added to backlog for consideration)

2. Key User Experience: Assessment & Confidence Capture

Phase 2 introduces dedicated workflows and UI elements for managing assessments and confidence surveys:

2.1. New Action Buttons:

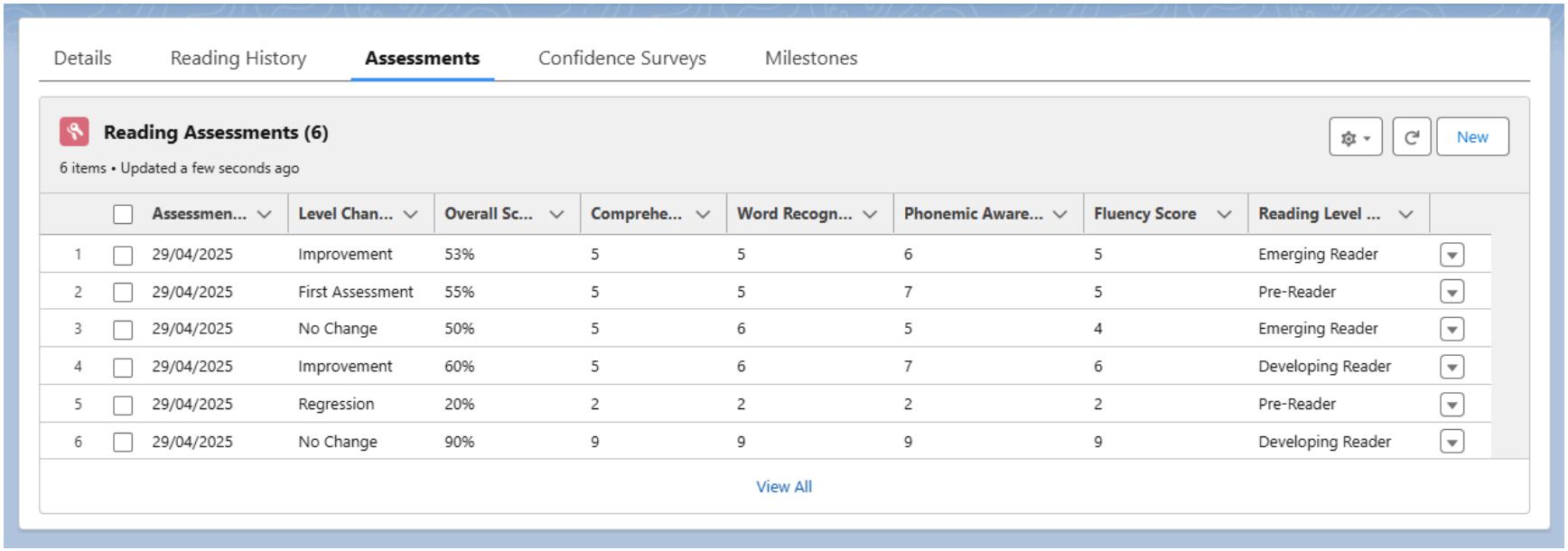
- "Log Assessment" and "Log Confidence Survey" action buttons are now available on the Student Lightning Record Page, providing direct entry points for these key activities.



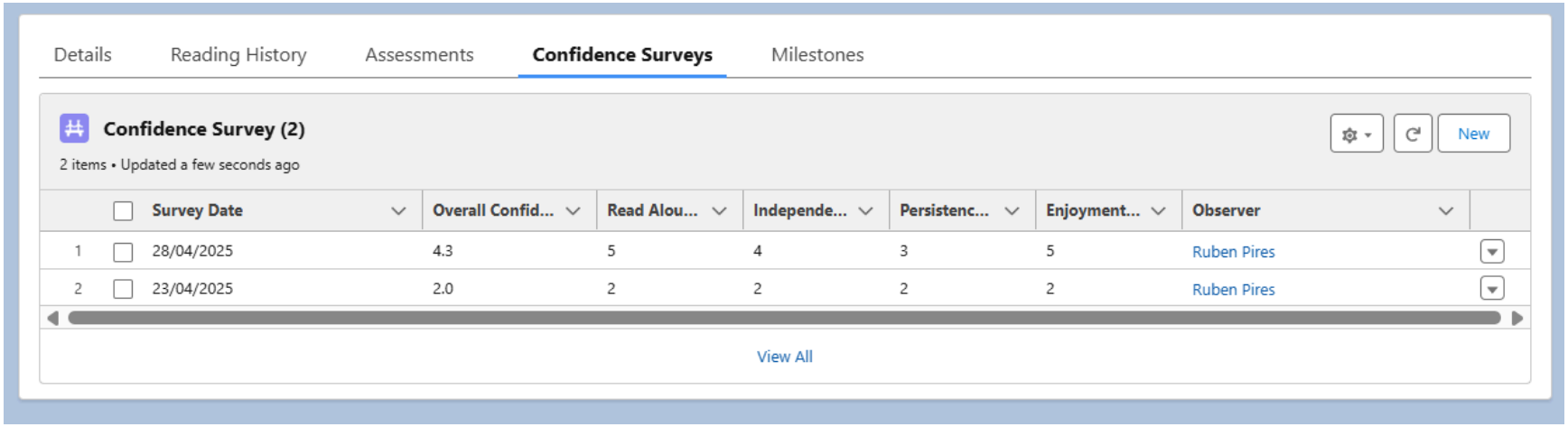
2.2. New Student Record Tabs & Related Lists:

- The Student page now features distinct tabs for "Assessments", "Confidence Surveys", and "Milestones".
- This provides staff with organized, easy access to historical data for each area.
- Each tab contains a dedicated "Related List - Single" component displaying key information:

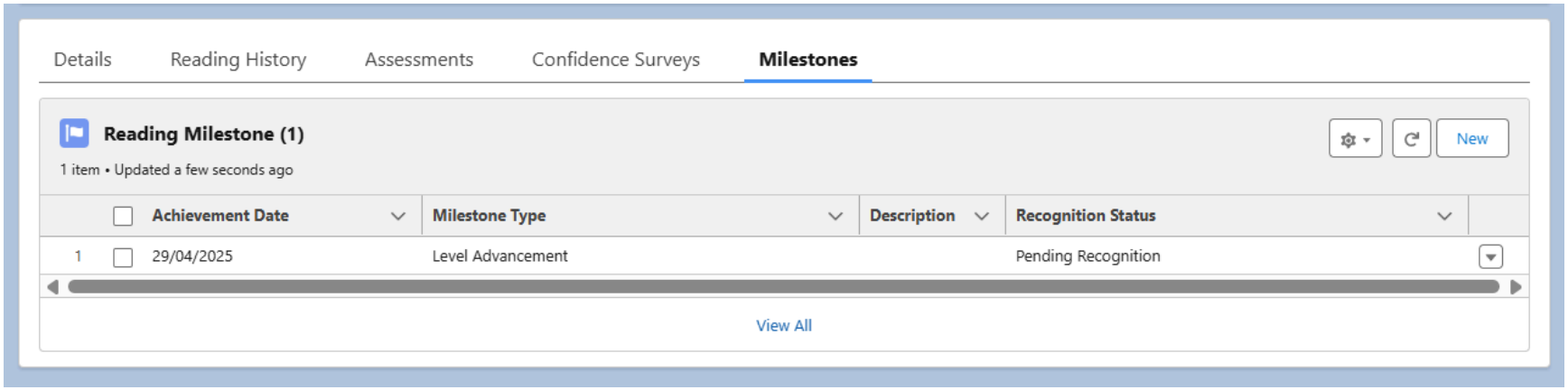
Assessments List: Shows Date, Level Determined, Overall Score, Level Change.



Confidence Surveys List: Shows Date, Overall Score, individual ratings, Observer.



Milestones List: Shows Achievement Date, Milestone Type, Description, Recognition Status.

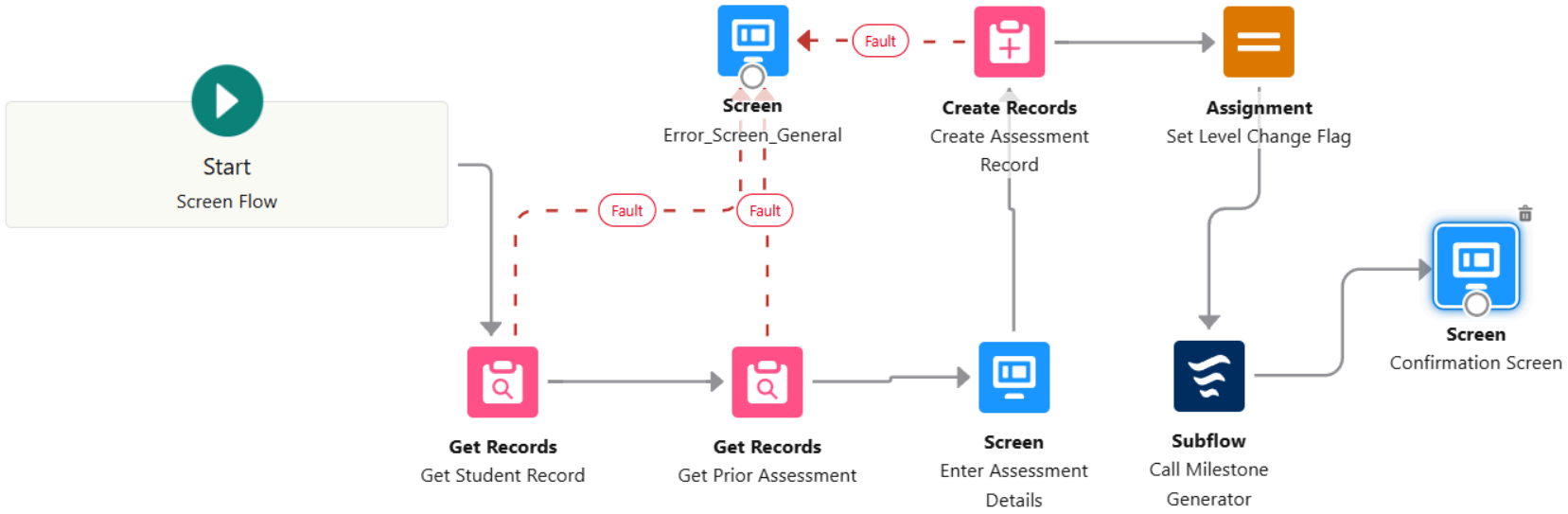


3. Phase 2 Core Automation (Flows)

Four new flows were implemented to handle data capture, synchronization, and milestone generation:

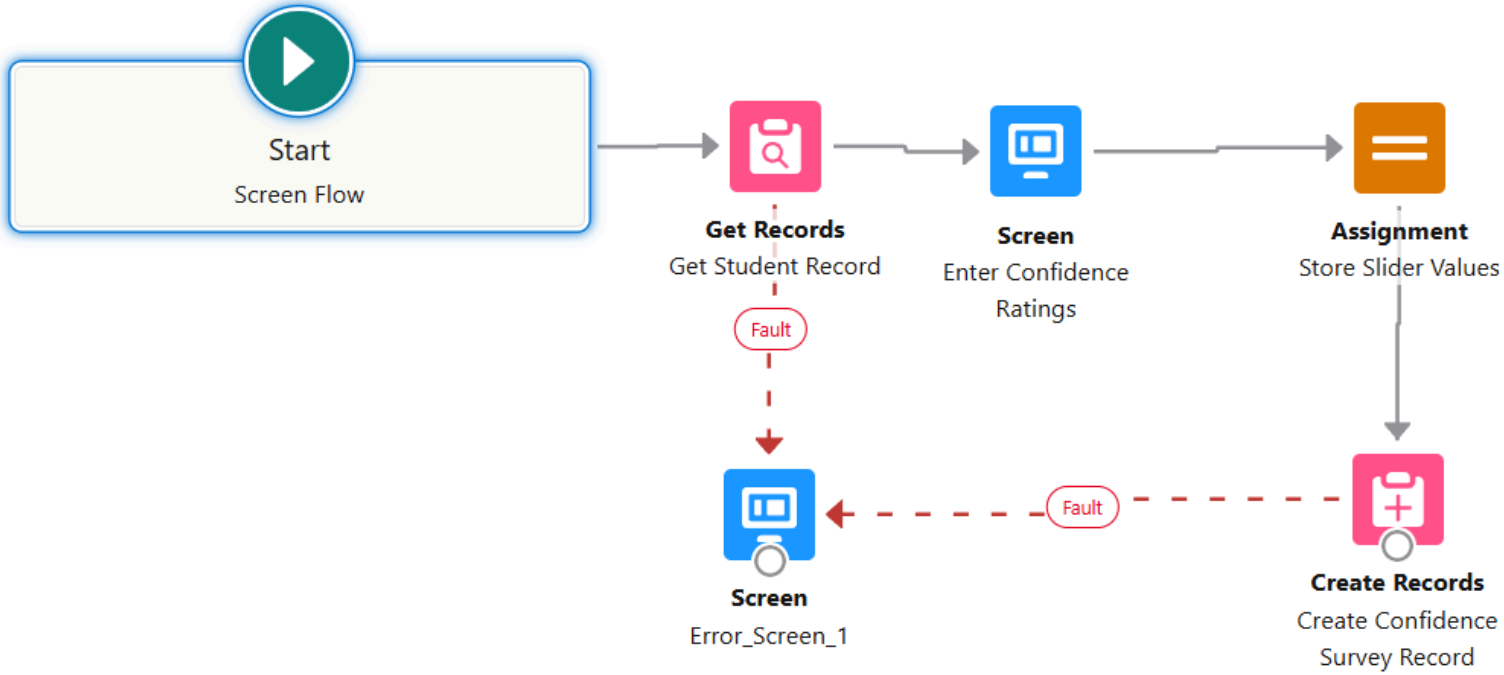
3.1. Flow 1: Assessment Capture (Screen Flow)

- **Purpose:** Guides users through logging a new Reading Assessment.
- **Mechanism:** Runs in User Context. **Gets Student context (auto-fills if launched from Student page)**, optionally displays prior assessment data, **collects new assessment details (Date, Level, Scores, Level Change) via screen inputs with validation.** Creates the **Reading_Assessment__c record (letting formulas calculate rank/overall score).** On successful creation, it **calls the Milestone Generator subflow,** passing the Student ID and a Boolean flag indicating if the Level_Change__c was "Improvement". **Includes error handling.**



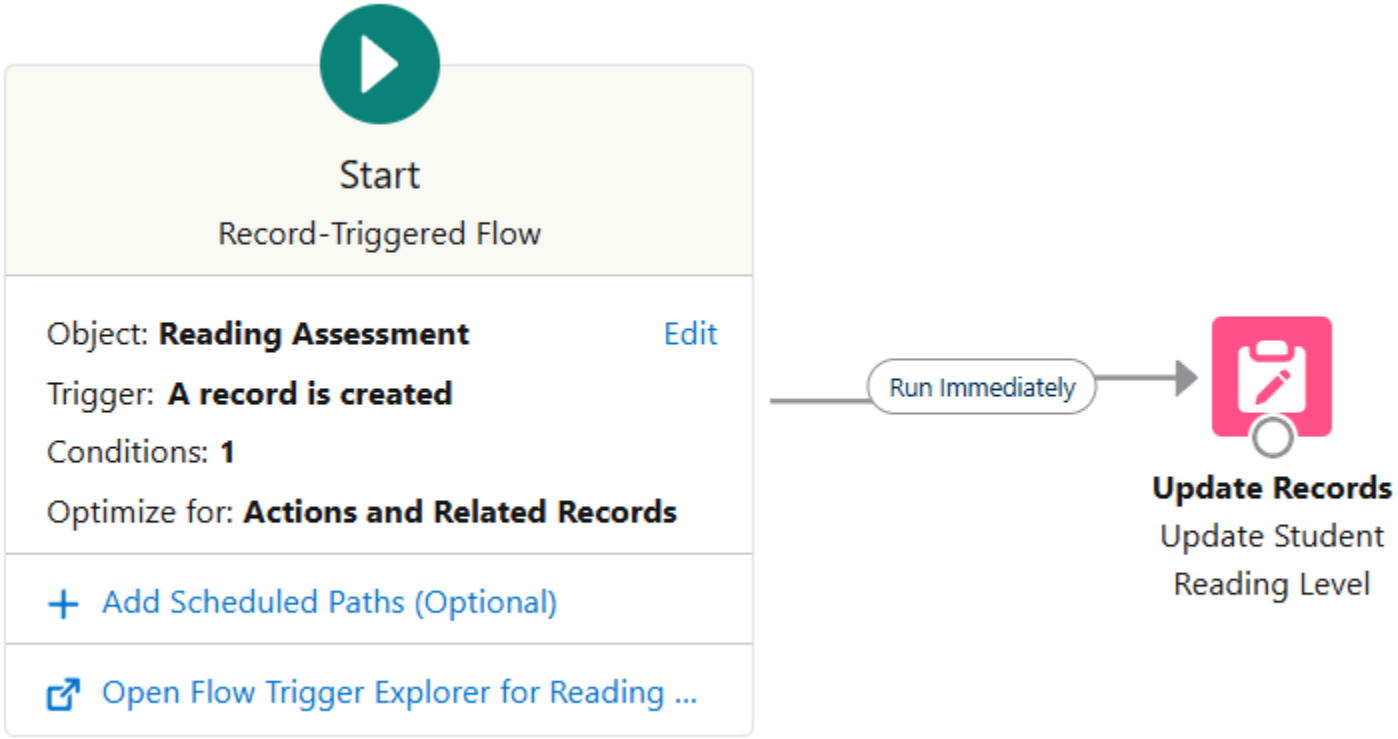
3.2. Flow 2: Confidence Survey Capture (Screen Flow)

- **Purpose:** Provides a quick interface for **logging student Confidence Survey ratings.**
- **Mechanism:** Runs in User Context. Gets Student context. **Uses screen sliders/number inputs to capture 1-5 ratings.** An Assignment element explicitly stores slider values in variables. **Creates the Confidence_Survey__c record, mapping the variables and auto-populating the Observer__c field with the current user ({!$User.Id}). Includes error handling.**



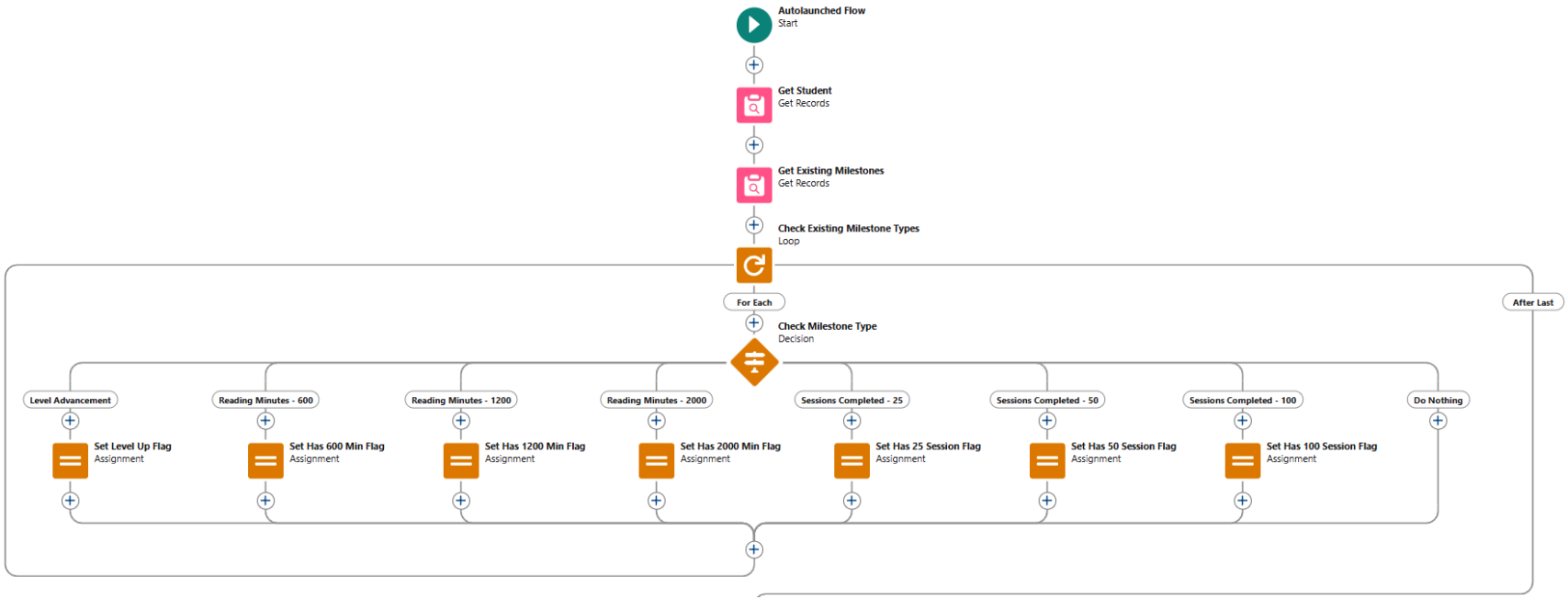
3.3. Flow 3: Reading-Level Sync (Record-Triggered Flow)

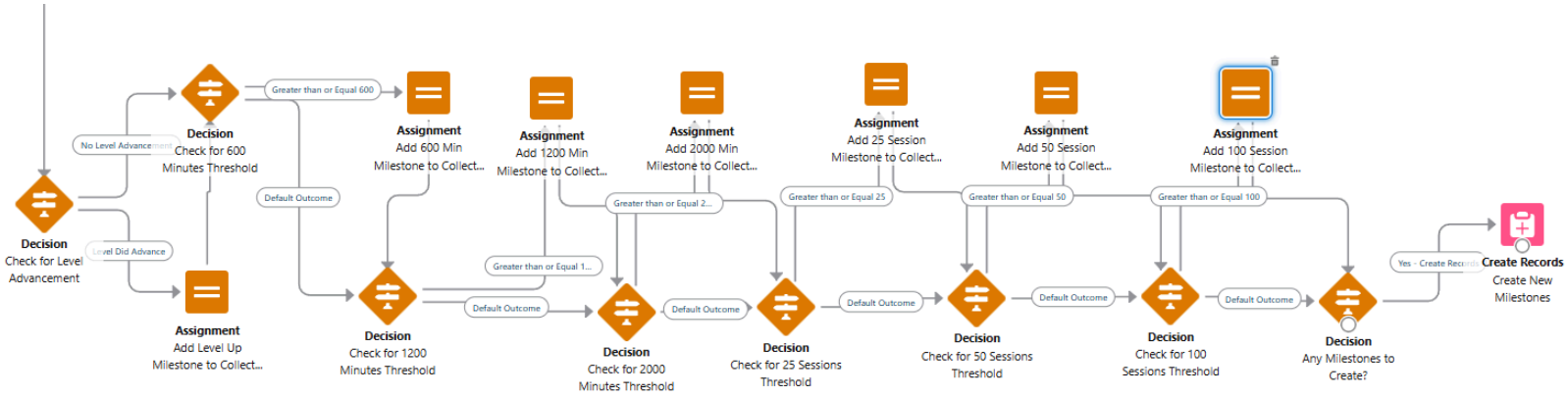
- **Purpose:** Automatically updates the primary Student__c.Current_Reading_Level__c field based on assessments.
- **Mechanism:** Runs after-save when a Reading_Assessment__c is created/updated.
- **Trigger Conditions:** Fires **only if the new assessment's rank (Reading_Level_Rank__c) is higher than the student's current highest rank roll-up** OR if the student had no previous rank.
- **Action:** Updates the Student__c.Current_Reading_Level__c picklist to match the Reading_Level_Determined__c from the triggering assessment record. **This keeps the Student Path and primary level indicator accurate.**



3.4. Flow 4: Milestone Generator (Autolaunched Subflow)

- **Purpose:** Centralized logic to check for and create Reading_Milestone__c records based on various triggers.
- **Mechanism:** Runs in System Context, designed to be called by other flows.
  - Takes **studentId and levelChangeFlag (Boolean) as inputs.**
  - **Gets the Student record and any existing Milestones for that student.**
  - It **loops through existing milestones to set flags preventing duplicates.**
  - It then **uses Decisions to check conditions** (e.g., Was levelChangeFlag true? Does Total_Reading_Minutes__c exceed a threshold AND the flag for that threshold isn't set?).
  - **If conditions are met, it prepares a new Milestone record variable** and **adds it to a collection (milestonesToCreate).**
  - Finally**, if the milestonesToCreate collection is not empty, it creates all records in the collection in a single operation.** This ensures robust, non-duplicative milestone creation.




Decision
Check for Level Advancement
No Level Advancement
Level Did Advance
Decision
Check for 600 Minutes Threshold
Greater than or Equal 600
Default Outcome
Assignment
Add Level Up Milestone to Collect...
Assignment
Add 600 Min Milestone to Collect...
Assignment
Add 1200 Min Milestone to Collect...
Assignment
Add 2000 Min Milestone to Collect...
Assignment
Add 25 Session Milestone to Collect...
Assignment
Add 50 Session Milestone to Collect...
Assignment
Add 100 Session Milestone to Collect...
Decision
Check for 1200 Minutes Threshold
Greater than or Equal 1...
Default Outcome
Decision
Check for 2000 Minutes Threshold
Greater than or Equal 2...
Default Outcome
Decision
Check for 25 Sessions Threshold
Greater than or Equal 25
Default Outcome
Decision
Check for 50 Sessions Threshold
Greater than or Equal 50
Default Outcome
Decision
Check for 100 Sessions Threshold
Greater than or Equal 100
Default Outcome
Decision
Any Milestones to Create?
Yes - Create Records
Create Records
Create New Milestones

4. Security & Access Model Updates

The existing security model (Profile, Permission Sets, Permission Set Groups) was extended to incorporate Phase 2 functionality:

- **Permission Set Updated:** The Literacy Program Core Access Permission Set was modified.
- **Changes Made:**
    - Added **CRUD** Object Permissions and **Visible** Tab Settings for the new custom objects: Reading Assessment, Confidence Survey, Reading Milestone.
    - Added necessary **Field-Level Security** (Read/Edit or Read-Only as appropriate) for all new fields on these objects and the new fields added to the Student__c object.
    - Added **Flow Access** for the new screen flows: Assessment Capture and Confidence Survey Capture.

- **Permission Set Groups:** No structural changes were needed for the PSGs (Literacy Specialist Role, Literacy Program Manager Role) as they automatically inherited the updated permissions from the modified Literacy Program Core Access set.

5. Next Steps (Phase 3 Preview)

Phase 2 successfully adds critical assessment and milestone capabilities. Phase 3 will focus on integrating **Volunteer Management**. Key goals include:

- Implementing the Student_Volunteer__c junction object to link Students and Volunteers (Contacts).
- Creating UI elements on the Contact record (Volunteer page) to show assigned students and aggregated hours.
- Building the scheduled flow (Volunteer Hours Aggregator) to calculate and update volunteer statistics on the Contact record.
- Refining location management features if needed.

The focus remains on building out the "all-inclusive" vision using scalable, declarative solutions.